

(iii) encoding a polypeptide having an amino acid sequence as set forth in SEQ ID NO. 5;

under conditions suitable to express the polypeptide; and optionally

(b) isolating the polypeptide from the culture.

D1
13. (Twice Amended) An isolated polypeptide comprising an amino acid sequence:

(a) as set forth in SEQ ID NO: 5; or

(b) encoded by a DNA insert encoding a Secs-1 polypeptide in ATCC Deposit No. PTA-1755.

14. (Twice Amended) An isolated polypeptide comprising:

(a) an amino acid sequence as set forth in SEQ ID NO: 6, optionally further comprising an amino-terminal methionine; or

(b) a fragment of the amino acid sequence set forth in SEQ ID NO: 5 comprising at least about 25 amino acid residues, but not more than 80 amino acid residues, wherein upon injection into an animal the fragment produces an antibody that binds to the polypeptide set forth in SEQ ID NO: 5.

D2
15. (Twice Amended) An isolated polypeptide comprising the amino acid sequence:

Met Arg Leu Leu Xaa Leu Ser Xaa Leu Xaa Xaa Xaa Leu Xaa Leu Cys Xaa Xaa Xaa
Xaa Ser Xaa Glu Gly Xaa Xaa Xaa Pro Ala Lys Xaa Xaa Xaa Xaa Arg Xaa Xaa Xaa
Xaa Xaa Cys His Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Lys Gly Xaa His Xaa
Arg Xaa Cys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Val Val Pro Gly
Ala Leu Pro Gln Xaa,

Sub
E1
wherein the residue at position 12 may be either methionine or isoleucine;

the residue at position 18 may be either cysteine or serine;

the residue at position 19 may be either isoleucine or valine;

the residue at position 22 may be either serine or threonine;

the residue at any of positions 25, 26, 61, or 64 may be either arginine or lysine;

the residue at position 27 may be either histidine or arginine;

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the residue at position 51 may be either threonine or asparagine;
the residue at position 55 may be either asparagine or histidine;
the residue at position 81 may be either isoleucine or valine;
the residue at any of positions 5, 8, 10, 11, 14, 17, 20, 31, 32, 33, 34, 36, 40, 43, 44, 46, 47,
48, 49, 50, 52, 57, 59, 62, 66, 67, 68, 69, 70, or 71 may be any naturally occurring amino acid; and
the residue at any of positions 37, 38, 39, or 65 may be any naturally occurring amino acid or
may be absent.

D2
E1
n

16. (Twice Amended) An isolated polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence:

- (a) as set forth in SEQ ID NO: 4;
- (b) of a DNA insert encoding a Secs-1 polypeptide in ATCC Deposit No. PTA-1755; or
- (c) encoding a polypeptide having an amino acid sequence as set forth in SEQ ID NO: 5.

57. (Amended) A polypeptide produced by a process comprising

(a) culturing a host cell containing a vector comprising a nucleic acid molecule having a nucleotide sequence of a region of the nucleotide sequence of:

- (i) SEQ ID NO: 4; or
- (ii) a DNA insert encoding a Secs-1 polypeptide in ATCC Deposit No. PTA-1755;

wherein the nucleic acid molecule encodes the polypeptide which is produced, the polypeptide is a fragment of at least about 25 amino acid residues, but not more than 80 amino acid residues, and wherein the polypeptide fragment upon injection into an animal produces an antibody that binds to the polypeptide set forth in SEQ ID NO: 5;

under suitable conditions to express the polypeptide; and optionally

- (b) isolating the polypeptide from the culture.

58. (Amended) A polypeptide produced by a process comprising:

(a) culturing a host cell containing a vector comprising a nucleic acid molecule having a nucleotide sequence encoding a polypeptide having the amino acid sequence:

Met Arg Leu Leu Xaa Leu Ser Xaa Leu Xaa Xaa Xaa Leu Xaa Leu Cys Xaa Xaa Xaa
Xaa Ser Xaa Glu Gly Xaa Xaa Xaa Pro Ala Lys Xaa Xaa Xaa Xaa Arg Xaa Xaa Xaa
Xaa Xaa Cys His Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Lys Gly Xaa His Xaa
Arg Xaa Cys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Val Val Pro Gly
Ala Leu Pro Gln Xaa,

wherein the residue at position 12 may be either methionine or isoleucine;

the residue at position 18 may be either cysteine or serine;

the residue at position 19 may be either isoleucine or valine;

the residue at position 22 may be either serine or threonine;

the residue at any of positions 25, 26, 61, or 64 may be either arginine or lysine;

the residue at position 27 may be either histidine or arginine;

the residue at position 51 may be either threonine or asparagine;

the residue at position 55 may be either asparagine or histidine;

the residue at position 81 may be either isoleucine or valine;

the residue at any of positions 5, 8, 10, 11, 14, 17, 20, 31, 32, 33, 34, 36, 40, 43, 44, 46, 47,
48, 49, 50, 52, 57, 59, 62, 66, 67, 68, 69, 70, or 71 may be any naturally occurring amino acid; and

the residue at any of positions 37, 38, 39, or 65 may be any naturally occurring amino acid or
may be absent;

wherein the nucleic acid molecule encodes the polypeptide which is produced;

under suitable conditions to express the polypeptide, and optionally

(b) isolating the polypeptide from the culture.

61. (Amended) An isolated polypeptide encoded by a nucleic acid molecule
comprising a nucleotide sequence of a region of the nucleotide sequence of:

(a) SEQ ID NO: 4; or

(b) a DNA insert encoding a Secs-1 polypeptide in ATCC Deposit No. PTA-1755;

wherein the nucleic acid molecule encodes a polypeptide fragment of at least about 25 amino
acid residues, but not more than 80 amino acid residues, and wherein upon injection into an animal
the polypeptide fragment produces an antibody that binds to the polypeptide set forth in SEQ ID NO:

5.